

**Notice of Allowability**

Application No.

10/758,334

Examiner

Van T. Trieu

Applicant(s)

GALLIVAN ET AL.

Art Unit

2612

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE and Amendment filed on 11 May 2006.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 1/15/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance: there are no prior arts teaching or suggesting of an area-protection system comprising:

sensors to detect an intruder within a protected-area;

an active-array antenna to generate a high-power millimeter-wave wavefront to deter intruder when detected within the protected area; and

one or more reflectors positioned within the protected area to help retain energy of the wavefront within the area,

wherein the active-array antenna comprises a plurality of semiconductor wafers arranged together on a substantially flat surface, each semiconductor wafer including a power amplifier and a transmit antenna which together generate the high-power millimeter-wave wavefront.

In another embodiment, an area-protection system comprising:

An-active-array antenna to generate a high-power millimeter-wave wavefront to deter an intruder within a protected area;

one or more reflectors positioned within the protected area to help retain energy of the wavefront within the area; and

an intrusion-detection subsystem to detect a presence of the intruder within the protected area and generate a detection signal for the active-array antenna,

wherein the active-array antenna is to generate the high-power millimeter-wave wavefront in response to the detection signal, and

wherein the high-power millimeter wave wavefront is to increase a skin temperature of the intruder to deter the intruder.

In another embodiment, an area-protection system comprising:

an intrusion-detection subsystem to detect presence of an intruder; and

an intrusion-inhibiting subsystem comprising one of either an active-array antenna or a passive reflect-array antenna to provide a high-power millimeter-wave wavefront in response to the detection of the intruder to deter the intruder,

wherein the intrusion-detection subsystem includes a biometric lock to determine whether the intruder is one or either a biological entity or a non-biological entity, the intrusion-detection subsystem to generate a biological-identification signal when a biological entity is detected,

wherein the intrusion-inhibiting subsystem generates the high-power wavefront in response to the biological-identification signal, and

wherein the intrusion-inhibiting subsystem refrains from generating the high-power wavefront when a non-biological entity is detected.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mr. Mike Horabik** can be reached on (571) 272-3068.

A handwritten signature in black ink, appearing to read 'Van Trieu', with a long, sweeping horizontal stroke extending to the right.

**Van Trieu**  
**Primary Examiner**  
**Date: 5/22/06**